CLEAN CLAIMS

1-59. (Cancelled)

60. (Currently Amended) A fiber optic module comprising:

a first optoelectronic device to couple photons into or receive photons out of a first optical fiber;

a first printed circuit board coupled to the first optoelectronic device parallel to an optical axis of the first optoelectronic device, the first printed circuit board having one or more pins;

a shielded housing spaced around the first printed circuit board, the shielded housing to reduce electromagnetic interference (EMI); and

a base coupled to the shielded housing perpendicular to the first printed circuit board.

61. (Previously Added) The fiber optic module of claim 60 wherein,

the first optoelectronic device has a first terminal electrically coupled to one side of the first printed circuit board and a second terminal electrically coupled to an opposite side of the first printed circuit board.

62. (Previously Added) The fiber optic module of claim 60 wherein,

the first printed circuit board is a vertical printed circuit board perpendicular to a horizontal plane and the optical axis of the first optoelectronic device is parallel to the horizontal plane.

63. (Previously Added) The fiber optic module of claim 60 wherein,

the fiber optic module mounts to a system printed circuit board such that the first printed circuit board is perpendicular to the system printed circuit board and the optical axis of the first optoelectronic device is parallel to the system printed circuit board.

64. (Previously Added) The fiber optic module of claim 63 wherein,

the one or more pins of the first printed circuit board couple to the system printed circuit board.

65. (Previously Added) The fiber optic module of claim 63 wherein,

the one or more pins of the first printed circuit board

couple to a connector of the system printed circuit board.

66. (Previously Added) The fiber optic module of claim 60 further comprising:

a first lens to focus photons between the first optoelectronic device and the optical fiber.

67. (Previously Added) The fiber optic module of claim 60 wherein:

the shielded housing is electrically coupled to ground.

68. (Previously Added) The fiber optic module of claim 67 wherein:

the shielded housing electrically couples to ground by coupling to a system chassis.

69. (Previously Added) The fiber optic module of claim 67 wherein:

the shielded housing electrically couples to ground through a trace on the first printed circuit board which is coupled to one of the one or more pins of the first printed circuit board.

70. (Currently Amended) The fiber optic module of claim 60

wherein,

the shielded housing includes the base as a portion thereof, the base having one or more openings from which the one or more pins of the first printed board extend.

71. (Currently Amended) The fiber optic module of claim 60 wherein,

the base has one or more openings from which the one or more pins of the first printed board extend.

72. (Previously Added) The fiber optic module of claim 60 further comprising:

a nose to receive an optical fiber connector and hold an optical fiber substantially fixed and aligned with the optical axis of the first optoelectronic device.

73. (Previously Added) The fiber optic module of claim 72 wherein,

the nose provides shielding to reduce electromagnetic interference (EMI).

74. (Currently Amended) The fiber optic module of claim 60 further comprising:

a second optoelectronic device to receive photons out of or

couple photons into a second optical fiber;

a second printed circuit board parallel to the first printed circuit board, the second printed circuit board coupled to the second optoelectronic device parallel to an optical axis of the second optoelectronic device, the second printed circuit board having a second plurality of pins; and wherein,

the shielded housing is spaced around the first and second printed circuit boards to reduce electromagnetic interference (EMI).

75. (Previously Added) The fiber optic module of claim 74 wherein,

the second optoelectronic device has a first terminal coupled to one side of the second printed circuit board and a second terminal coupled to an opposite side of the second printed circuit board.

76. (Currently Amended) The fiber optic module of claim 74 wherein,

the shielded housing includes the base as a portion thereof, the base having openings from which the one or more pins of the first printed board extend and the one or more pins of second printed circuit board extend.

77. (Currently Amended) The fiber optic module of claim 74 wherein,

the base has openings from which the one or more pins of the first printed board extend and the one or more pins of second printed circuit board extend.

78. (Previously Added) The fiber optic module of claim 74 further comprising:

a nose to receive a first optical fiber connector and hold a first optical fiber substantially fixed and aligned with the optical axis of the first optoelectronic device and to receive a second optical fiber connector and hold a second optical fiber substantially fixed and aligned with the optical axis of the second optoelectronic device.

79. (Previously Added) The fiber optic module of claim 78 wherein,

the nose provides shielding to reduce electromagnetic interference (EMI).

80. (Previously Added) The fiber optic module of claim 74 wherein,

the first printed circuit board and the second printed

circuit board are vertical printed circuit boards perpendicular to a horizontal plane.

81. (Previously Added) The fiber optic module of claim 74 wherein,

the first printed circuit board and the second printed circuit board are vertical printed circuit boards perpendicular to a system printed circuit board when the fiber optic module is mounted thereto.

82. (Currently Amended) The fiber optic module of claim 74 further comprising:

an internal shield between the first printed circuit board and the second printed circuit board and parallel therewith

and wherein, the shielded housing is spaced around the first printed circuit board and the second printed circuit board to reduce electromagnetic interference (EMI).

83. (Currently Amended) A fiber optic module for coupling photons between optoelectronic devices and optical fibers, the fiber optic module comprising:

a base to mount the fiber optic transceiver in a system to couple photons between optoelectronic devices and optical fibers;

a first printed circuit board perpendicular to the base, the first printed circuit board having a pin inserted through a first opening in the base;

a first optoelectronic device having terminals coupled to the first printed circuit board, the first optoelectronic device having an optical axis parallel to the first printed circuit board;

a second printed circuit board perpendicular to the base and parallel to the first printed circuit board, the second printed circuit board having a pin inserted through a second opening in the base;

a second optoelectronic device having terminals coupled to the second printed circuit board, the second optoelectronic device having an optical axis parallel to the second printed circuit board; and

a shielded housing coupled to the base, the shielded housing spaced apart and wrapped around the first printed circuit board and the second printed circuit board to reduce electromagnetic interference (EMI).

84. (Currently Amended) The fiber optic module of claim 83 further comprising:

an internal shield between the first printed circuit board and the second printed circuit board and parallel therewith

and wherein, the shielded housing is spaced apart and wrapped around the first printed circuit board and the second printed circuit board to reduce electromagnetic interference (EMI).

85. (Currently Amended) The fiber optic module of claim 84 wherein,

the internal shield provides shielding to reduce crosstalk between the first printed circuit board and the second printed circuit board.

86. (Previously Added) The fiber optic module of claim 83 further comprising:

a first lens to focus photons between the first optoelectronic device and a first optical fiber; and

a second lens to focus photons between the second optoelectronic device and a second optical fiber.

87. (Previously Added) The fiber optic module of claim 83 wherein,

the first printed circuit board and the second printed circuit board are vertical printed circuit boards perpendicular to a horizontal plane.

88. (Previously Added) The fiber optic module of claim 83 wherein,

the first printed circuit board and the second printed circuit board are vertical printed circuit boards perpendicular to a horizontal system printed circuit board when the fiber optic module is mounted thereto.

89. (Previously Added) The fiber optic module of claim 83 further comprising:

a nose coupled to the base, the nose to receive an optical fiber connector to align a pair of optical fibers with the optical axis of the first optoelectronic device and the optical axis of the second optoelectronic device.

90. (Previously Added) The fiber optic module of claim 89, wherein,

the nose includes shielding to reduce electromagnetic interference.

91. (Previously Added) The fiber optic module of claim 83, wherein,

the fiber optic module is a fiber optic transceiver and wherein

the first optoelectronic device is a photodetector, and

the second optoelectronic device is an emitter.

92. (Currently Amended) The fiber optic module of claim 91, wherein,

the emitter is a vertical cavity surface emitting laser (VCSEL).

93. (Previously Added) The fiber optic module of claim 83 wherein,

the first optoelectronic device has a first terminal electrically coupled to one side of the first printed circuit board and a second terminal electrically coupled to an opposite side of the first printed circuit board, and

the second optoelectronic device has a first terminal electrically coupled to one side of the second printed circuit board and a second terminal electrically coupled to an opposite side of the second printed circuit board.

94. (Currently Amended) A method of assembling a fiber optic module, the method comprising:

providing a first printed circuit board and coupling terminals of a first optoelectronic device to the first printed

circuit board such that an optical axis of the first optoelectronic device is parallel with the first printed circuit board;

providing a second printed circuit board and coupling terminals of a second optoelectronic device to the second printed circuit board such that an optical axis of the second optoelectronic device is parallel with the second printed circuit board; and

providing a shielded housing spaced around the first printed circuit board and the second printed circuit board such that the first printed circuit board is parallel with the second printed circuit board and the optical axis of the first optoelectronic device is parallel with the optical axis of the second optoelectronic device.

95. (Previously Added) The method of claim 94 further comprising:

coupling a base to the shielded housing perpendicular to the first printed circuit board and the second printed circuit board.

96. (Currently Amended) The method of claim 94 further comprising:

prior to providing the shielded housing spaced around the

first printed circuit board and the second printed circuit board,

inserting an internal shield between the first printed circuit board and the second printed circuit board.

97. (Previously Added) The method of claim 94 wherein,

the first printed circuit board and the second printed circuit board are vertical printed circuit boards perpendicular to a horizontal plane.

98. (Previously Added) The method of claim 94 wherein,

the first printed circuit board and the second printed circuit board are vertical printed circuit boards perpendicular to a horizontal system printed circuit board when the fiber optic module is mounted thereto.

99. (Previously Added) The method of claim 94 wherein,

the first optoelectronic device has a first terminal electrically coupled to one side of the first printed circuit board and a second terminal electrically coupled to an opposite side of the first printed circuit board, and

the second optoelectronic device has a first terminal electrically coupled to one side of the second printed circuit board and a second terminal electrically coupled to an opposite

side of the second printed circuit board.

100. (New) The fiber optic module of claim 60 wherein, the shielded housing is a metal housing.

101. (New) The fiber optic module of claim 60 wherein, the shielded housing is a metal plated plastic housing.

102. (New) The fiber optic module of claim 74 wherein, the first optoelectronic device is a photodetector to receive photons out of the first optical fiber, the second optoelectronic device is an emitter to couple photons into the second optical fiber, and the fiber optic module is a fiber optic transceiver module.

103. (New) The fiber optic module of claim 83 wherein, the shielded housing is a metal housing.

104. (New) The fiber optic module of claim 83 wherein, the shielded housing is a metal plated plastic housing.

105. (New) A fiber optic module comprising:
a first optoelectronic device to couple photons into or

receive photons out of a first optical fiber;

a first printed circuit board coupled to the first optoelectronic device parallel to an optical axis of the first optoelectronic device, the first printed circuit board having one or more pins; and

a metallic shielded housing spaced apart around the first printed circuit board, the metallic shielded housing to reduce electromagnetic interference (EMI).

106. (New) The fiber optic module of claim 105 wherein:

the metallic shielded housing is electrically coupled to ground.

107. (New) The fiber optic module of claim 106 wherein:

the metallic shielded housing electrically couples to ground by coupling to a system chassis.

108. (New) The fiber optic module of claim 106 wherein:

the metallic shielded housing electrically couples to ground through a trace on the first printed circuit board which is coupled to one of the one or more pins of the first printed circuit board.

109. (New) The fiber optic module of claim 105 wherein,

the metallic shielded housing has a base as a portion thereof, the base having one or more openings from which the one or more pins of the first printed board extend.

110. (New) The fiber optic module of claim 105 further comprising:

a base coupled to the metallic shielded housing, the base having one or more openings from which the one or more pins of the first printed board may extend.

111. (New) The fiber optic module of claim 105 further comprising:

a second optoelectronic device to receive photons out of or couple photons into a second optical fiber;

a second printed circuit board parallel to the first printed circuit board, the second printed circuit board coupled to the second optoelectronic device parallel to an optical axis of the second optoelectronic device, the second printed circuit board having a second plurality of pins; and wherein,

the metallic shielded housing is spaced apart around the first and second printed circuit boards to reduce electromagnetic interference (EMI).

112. (New) The fiber optic module of claim 111 wherein,

the first optoelectronic device is a photodetector to receive photons out of the first optical fiber,

the second optoelectronic device is an emitter to couple photons into the second optical fiber, and

the fiber optic module is a fiber optic transceiver module.